Renovation and Restoration of Historic Structures

Since its inception, the Building Authority has financed several projects to restore historical structures including the State House, Old Barracks Museum, War Memorial, and the Thomas Edison State College townhouses. Descriptions of the projects follow:

State House Complex Improvements Project Cost: \$143,993,680

In May 1987, the Building Authority Chairman was named to oversee the restoration and renovation of the legislative portion of the State House and the State House Annex.

During 1988, design work on the State House portion of the project was completed. Construction contracts for work on the Legislative State House were awarded in 1989 and 1990, with completion in the fall of 1991.

Restoration of the Annex began in late 1992 and was completed in February, 1995.

In 1991, the Legislature authorized further improvements to the State House Complex including more extensive restorations of the Annex, construction of a structural parking garage, and installation of a roof-top plaza and landscaped park at the rear of the Complex.

State House Annex

The Annex renovations were completed and closed-out in December 2002.

State House Garage, Plaza and Stacy Park

A design/build contract was awarded in late 1998 for the Garage Plaza. Development, structural and technical issues were investigated to ensure the successful construction of the plaza, park and fountain. During the design phase, it was decided that a granite paver system matching the existing hard-scape in the Capitol Complex would be installed and that the existing garage roof system would be enhanced and reinforced by providing new flashing, replacing the roof membrane and expansion joints and installing a concrete overlay.

By August 1999, the Plaza design was





approved and work began on waterproofing upgrades. By year-end the roofing modifications, concrete overlay, and forming out of the base of the main fountain were complete, and the installation of granite curbing was nearing completion. The entire roof was flood tested to ensure the integrity of the roof system. Installation of the granite pavers was initiated.

In early 2000, the granite curbing was completed. The fountain sculpture, part of a separate arts inclusion contract, was erected by summer, 2000. The Plaza was landscaped by mid-summer.

Work on the granite pavers and fountain was completed by the end of September 2000. The Plaza Park and Fountain were officially dedicated at a celebration in October 2000.

Status at December 31, 2003

Construction documents addressing repairs needed to eliminate water filtration at the ventilation towers, plaza skylights and tunnel entrance of the parking garage were prepared by December 2003. This project is expected to be advertised in early spring.

State House Annex Entablature

During the winter of 1996, a section of the cornice or entablature assembly on the State House Annex fell from the building. A preliminary study of the soundness of the entablature revealed that the failures were the result of the freeze-thaw process. The issue involving the entablature was not part of the original scope of the Annex renovation project. In January 1998 funding was approved by the Building Authority to perform a more detailed investigation of the cornice and to develop design drawings to complete the repairs. The estimated cost for the project was approximately \$5.7 million. Due to the Authority delivering several projects under budget, this project was funded from the residual balances.

A special prequalification of the bidders for this project was completed in January 1999. The project was advertised for bid and the contract was awarded in late February 1999. Extensive scaffolding and canopies were constructed for the project by April. During removal of some cornice stones, the contractor discovered that some underlying dentil stones were also cracked. By November, all cornice and dentil stones had been replaced. Given some of the failures of the existing roof system, the replacement of the roof was added to the project. Roof replacement work was completed over the east and west wings in late fall 1999. Prior to installation of the underlayment and roof pavers, which cover the roofing system, the design consultant was requested to further investigate the concrete roof slab.





In 2000, the consultant conducted extensive tests and took several roof cores from portions of the roof and issued a report on the condition of the roof slab. The final report indicated a possible deterioration of the existing concrete slab, particularly on the West Wing.

Consequently, completion of the roof installation was placed on hold until a plan could be developed to remediate the deficiencies in the roof slab.

A scope of work was developed to contract with an independent engineer to conduct a structural investigation and develop design documents for the Roof Slab Renovation and Replacement project. This project was funded and administered under a separate State project.

Remediation roof slab repairs began in July 2001 and were completed by January 2002.

State House Dome Restoration Project Cost: \$9,078,421

The New Jersey State House is the second oldest State House in continuous legislative use in the United States. The cupola and lantern, which sit on top of the gilded dome, rise 145 feet from ground level. This makes the State House dome the most visible structure in Trenton as well as the most important symbol of the State's capital. Since its reconstruction in 1889, the dome had not undergone any significant structural repairs. Exterior caulking was done in 1989 as a temporary attempt to prevent leaking and water penetration. The most recent gilding and painting of the dome and drum had occurred in 1972, but inadequate surface preparation and inferior materials resulted in the initial flaking of the surface within ten years.

The State House dome was in obvious need of repair. The gold gilding had failed, leaving an unsightly discolored surface, paint on the cast iron was chipped and rust was prevalent throughout. Water leaking form the dome ruined the rotunda walls.

A consultant was hired to investigate the causes of the dome problems, recommend solutions and estimate the cost of repairs. A final report of findings, recommendations and cost was issued in December 1996. The report recommended, among other repair and restorations items, the complete disassembly, repair and reassembly of the exterior cast iron of the drum and cupola, structural reinforcement of the 24 webbed columns of the dome's frame, replacement of all copper cladding on the dome and cupola roofs, the regilding of all copper cladding,







repainting and regilding of all of the interior finishes of the rotunda, and the repair of stained glass windows. The project report and Legislative approval for the project was received in June 1997.

Due to the magnitude of the dome and the necessary repairs, a complex network of scaffolding was required. Placement of the scaffolding footings were completed in the fall of 1997. Once the scaffolding footings were in place, the steel structure took approximately three months to assemble and remained in place for the duration of the project.

Removal of existing copper on the Dome was completed in July and the cast iron removal was completed in August 1998. The cast iron pieces were transported to a foundry in Alabama for refinishing. By late February 1999, the cast iron pieces were reinstalled and the wood sheathing under the copper dome was replaced. New copper replaced the old, worn copper and the regilded cupola was reinstalled on top of the dome.

The interior finishes were repaired and refinished including the plastering, painting, regilding of the metal railings and refinishing of the stone work. The stained glass windows were restored at an off-site location and reinstalled.

In May 1999, the gilding of the exterior dome and the refinishing of the Great Seal were complete. Disassembly of the scaffolding began in June. The Dome Dedication Celebration was held on July 8th.

The project was completed significantly under budget and on schedule.





Thomas Edison State College Townhouses Restoration and Renovation Project Cost: \$14,427,000

This project included renovating six (6) historic townhouses located at 105-115 West State Street, adjacent to Thomas Edison State College. The 19th Century building exteriors were restored to their "near original" appearance and the interiors were converted to modern office space for Thomas Edison State College personnel. A new addition connects the townhouses and the Kelsey Building.

The project was substantially completed in October 1999. College personnel moved into the facility in November 1999. By late 2002, all DCA code requirements were satisfied and Certificates of Approval were received.







The NJBA had initiated repairs to the antique wood clock at the Kelsey Building because of its severe state of deterioration and potential hazard to passing pedestrians. The clock was refurbished by an antique clock consultant to its original detail and splendor. New protective coatings were applied to all exterior components and, once again, this beautiful clock proudly adorns the Kelsey Building facade.







Through the New Jersey Council of the Arts, the NJBA had initiated a number of Art projects to be included in the college's renovation efforts. In September 2003, a glass sculpture was suspended from the atrium ceiling. Another project includes the fabrication of bronze dedication plaques and floor inlays which depict past historic structures within the City of Trenton. Special attention was given to accurately represent the existing roadways, buildings, and landmarks within historic Trenton. This beautiful series of plaques and tiles will be set into the floor of the Atrium and the Great Hall.

Status as of December 31, 2003

Delivery and installation of the bronze plaque and tiles are scheduled for the spring.

Old Barracks Museum Restoration Project Cost: \$6,653,754

The objective of this project was to complete the restoration of the Old Barracks Museum including archeological investigation and work on the interior of the Barracks, the roof, porches, parade ground and stockade fence.

This project was completed on time and under budget in December 1998.
Contract closeout was completed in early 2001.



War Memorial Restoration and Renovation Project Cost: \$34,065,977

The objective of this project was to renovate and historically restore the War Memorial as a multi-use auditorium/performing arts theater and center.

All the major interior and exterior work was completed in 1998.

A Temporary Certificate of Occupancy was issued in early December 1998 and four "trial run" concerts were held.

The Authority sponsored "Hard Hat" concert was the first concert held. Craftsmen and their families and other individuals from the private and public sector who assisted in completing the renovation of the War Memorial attended this free concert.

The Governor's State of the State message was held in mid-January 1999 after which the building was rededicated to all war veterans. The Grand Reopening was held in March 1999.







In early 2001, an additional balcony railing was added in the Auditorium as requested by the Building Authority Board to enhance public safety. The Building Authority approved sound and lighting upgrades for the theater in mid-2001. The design was advertised and awarded to sound and lighting consultants in late 2002. The first set of design plans were developed by February 2003. Plan modifications continued through 2003 to address issues related to the safeguarding of seating areas already compliant with the Americans with Disabilities Act (ADA) during construction of the new theater sound monitoring and mixing stations.

Status as of December 31, 2003

By December 2003, revised construction documents for the sound and lighting systems, which addressed ADA concerns during renovations, were submitted for plan review.



Pinelands Commission Renovations Project Cost: \$1,150,000

The objective of this project is to renovate and repair the Pinelands Commission Headquarters located in Pemberton Township while maintaining historical value. The project entails interior and exterior renovations to Fenwick Manor, the carriage house, barn and historic outhouse. Improvements will address code, safety and environmental issues and updates to all utilities and building systems including heating, air conditioning, electrical, plumbing and telecommunications.

The design contract was awarded in February 2003. Structural and environmental investigations began in April and a report with recommendations was presented to the Quality Review Board (QRB) in May. The project budget was increased by \$150,000 to encompass the necessary renovations. By July, the QRB agreed to all Fenwick Manor renovations and to bid the renovations to the Barn, Carriage House and outhouse as add alternates.

In September, a decision was made to bid the project with a base project scope to meet the original \$1,150,000 budget. At the October 2003 NJBA meeting, a revised project report authorizing an additional \$800,000 for construction was approved contingent upon Legislative approval. The additional funds will allow for the complete renovations to Fenwick Manor, Carriage House, barn and outhouse. The NJBA has contacted an outside vendor to provide a limited scope of work for project management scheduling and cost analysis for the project.

Status at December 31, 2003

The contractor pre-qualification package has been approved and is presently being advertised.



